

Remarks

(NOTE: Claims 16, 35, and 51 were only objected to, not rejected, in the page titled “Office Action Summary”, but no reason was given for the objections, since these claims were not discussed at all in the Office action. Applicants respectfully request that the details of this objection be presented in the next Office action, and that it be designated as a non-final Office action to permit Applicants to address the objection.

Claims 21-23 and 26-27 have been objected to because of the term “operable to” in claim 21. Claim 21 has been amended accordingly. In response to the Examiner’s comments, Applicants wish to point out that the claim requires that the device be capable of performing the recited operations, but actual performance of the operations is not required for infringement, as this type of limitation belongs in a method claim. This wording is to make the manufacturer of the offending device guilty as an infringer. If actual performance of the operations was required, then only the end user might directly infringe, and the protection afforded by the patent would be compromised.

Claims 9-10 have been objected to under 35 USC 112(2) for lack of antecedent basis. Claims 9 and 10 have been amended accordingly.

Claims 1-3, 6-8, 11, 17-18, 21-22, and 27 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting over claims 12 and 30 of copending U.S. patent application 10/677,055 (“Stephens ‘055), in view of U.S. published patent application 2003/0169769 (“Ho”).

Claims 9 and 19 have been provisionally rejected on the ground of nonstatutory obvious-type double patenting over claim 12 of Stephens ‘055 in view of Ho and U.S. published patent application 2005/0073960 (“Oura”).

Claims 10, 12, 15, 20, 23, and 26 have been provisionally rejected on the ground of nonstatutory obvious-type double patenting over claims 12 and 30 of Stephens ‘055 in view of Ho and U.S. patent 5,706,428 (“Boer”).

Applicants respectfully traverse the double-patenting rejections because neither Stephens ‘055 nor Ho nor Oura nor Boer disclose or suggest the elimination of an interframe space (“IFS”) between PDUs, the elimination of the IFS being a required limitation in each of the rejected claims. The rejection admits that Stephens ‘055 does not teach this limitation. The rejection then points to various figures and paragraphs of Ho that do not show or discuss an IFS between PDUs, implying that Ho shows that a missing IFS between PDUs would be commonly known. However, independent claims 1, 11, and 21, as amended (and therefore claims 2-3, 6-8, 17-18, 22, and 27 based on their dependency from claim 1, 11, and 21) require that the second PDU has a preamble. (This limitation was previously in claims 3, 12, 23, 31, 42, and 47, which have been cancelled as redundant) Therefore, there is no IFS before the second preamble in the claimed invention. All of Ho’s PDUs after the first are presented without any preamble (see Figs. 6, 8, 11, etc.). Ho’s approach would be the conventional approach - preambles are normally used after an IFS, since the expected absence of signal during an IFS would typically require the receiver to re-synchronize on the signal when it starts again in the new PDU. Ho teaches the conventional approach by showing an IFS only before a preamble (see Figs. 2, 4a-c, etc.). Ho shows no IFS in Fig. 6, 8, 11, etc. because there are no preambles in these PDUs. Ho teaches against Applicants’ claimed invention, which uses preambles even when there is no preceding IFS.

Oura and Boer were cited for other limitations, and do not make up for these missing limitations in Stephens ‘055 and Ho. Withdrawal of the double-patenting rejections is respectfully requested.

Claims 1-3, 6-8, 30-31, 34, 36, and 37 have been rejected under 35 USC 102(e) as being anticipated by Ho.

Claims 9 and 19 have been rejected under 35 USC 103(a) as being unpatentable over Ho in view of Oura.

Claims 11-12, 15, 17-18, 20-23, 26-27, 41, 46-47, and 50 have been rejected under 35 USC 103(a) as being unpatentable over Boer in view of Ho.

Claim 10 has been rejected under 35 USC 103(a) as being unpatentable over Ho in view of Boer.

Claims 40, 42, and 45 have been rejected under 35 USC 103(a) as being unpatentable over Ho in view of U.S. patent 6,694,134 (“Lu”).

Applicants respectfully traverse these rejections because the cited references do not disclose or suggest every limitation of any of these claims, as the following analysis shows.

Independent claims 1, 11, 21, 30, 40, and 46 each recite, with various wording, the absence of an IFS preceding a second PDU that has a preamble – in other words, the preamble of the second PDU does not follow an IFS. This limitation was previously in dependent claims 3, 12, 23, 31, 42, and 47, which have now been cancelled as redundant. In addressing those dependent claims, the rejection cited Ho as teaching this limitation, referring to Figs. 2, 4, 6, and paragraphs 8-10, 38. However, a careful examination of Ho, and in particular those parts of Ho, does not show a preamble in a second PDU without a preceding IFS. Figs. 2 and 4a,b,c show an IFS preceding the second preamble in every instance. Fig. 6 does not show any preambles at all, nor does it show what might precede the illustrated sequence.

The Office action further states that elimination of the IFS is not taught by Boer (page 31 line 11 of the Office action), while Oura and Lu were only cited for other limitations (specific modulation rate and computer readable medium). Thus, none of the cited references disclose or suggest a preamble in a second PDU that does not follow an IFS. Withdrawal of the rejections under 35 USC 102 and 103 is respectfully requested.

The remaining pending claims all depend, directly or indirectly, from one of independent claims 1, 11, 21, 30, 40, and 46, and therefore contain the same limitations that are not disclosed or suggested by the cited references.

Claims 4, 14, 25, 33, 44, and 49 have been cancelled, although they were previously withdrawn due to a species restriction and are currently not under consideration. However, if re-considered in the future in view of a generic claim, they would be incompatible with the currently existing independent claims, and have therefore been cancelled in anticipation of the eventual allowance of a generic claim.

Conclusion

For the foregoing reasons, it is submitted that the application is in condition for allowance, and indication of allowance by the Examiner is respectfully requested. If the Examiner has any questions concerning this application, he or she is requested to telephone the undersigned at the telephone number shown below as soon as possible. If any fee insufficiency or overpayment is found, please charge any insufficiency or credit any overpayment to Deposit Account No. 50-0221.

Respectfully submitted,

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